

REMARKS

Claims 1-3, 9, 12, 17-19, 22-23 and 26-36 remain in this application for consideration. In addition, new claims 37 and 38 have been added. Claims 4-8, 10-11, 13-16 and 24-25 have been withdrawn from further consideration and claims 20-21 have been cancelled. Claims 1, 9, 22-23 and 26-28 have been amended, and reconsideration of all of the currently pending claims is courteously requested.

Claim 1 and its dependent claims are directed to an orthodontic set-up tray. Orthodontic set-up trays are often used by orthodontists to support orthodontic appliances at a location near the patient's chair so that bonding of the appliances to the patient's teeth can be carried out without undue delay. Orthodontic set-up trays are commonly constructed to arrange and support the orthodontic appliances in an array having two rows corresponding to the patient's upper and lower dental arches. The appliances are located in positions along the rows that correspond to tooth positions along the dental arches. In this manner, the likelihood of bonding one of the appliances to the wrong tooth is substantially reduced.

However, the treatment of orthodontic patients usually varies from one patient to the next and in some instances certain appliances (such as molar appliances) may not be handled by the practitioner at the same time that the remaining appliances are handled. In addition, the details of the bonding procedure may vary from one practitioner to the next. For example, some practitioners may prefer to bond only some of the appliances to the patient's teeth during one time period and then bond a second set of appliances to the patient's remaining teeth during another time period, while other practitioners may prefer to bond all of the appliances to the teeth during the same time period.

Claim 1 and its dependent claims are directed to an orthodontic set-up tray that provides substantial advantages to the practitioner. Because the set-up tray of claim 1 includes two sections and a coupling movably connecting the first section to the second section to enable relative movement between the sections, the set-up tray can be modified as needed in accordance with the practitioner's preferred techniques and in accordance with the particular patient at hand. Yet, all of the appliances can be arranged in the set-up tray for a complete dental arch in advance by, for example, the manufacturer or by the practitioner.

Claim 1 has been amended to recite that the first and second section of the set-up tray include a first and second array of receptacles respectively, and that each of the first and second arrays of receptacles is arranged in two rows corresponding to areas of the patient's upper and lower dental arches. Claim 1 has also been amended to recite that a first orthodontic appliance is received in a first receptacle of the first array and a second orthodontic appliance is received in a second receptacle of the second array.

Claim 1 as amended clearly distinguishes over the parts pack used to store hand tools as described in the '229 Dunn et al. patent. The Dunn et al. parts pack does not have two sections each with an array of receptacles that is arranged in two rows corresponding to areas of a patient's upper and lower dental arches. Dunn et al. also do not describe orthodontic appliances received in receptacles of the arrays.

Claim 1 as amended is also distinguished over the Dixon et al. patent application (US 2001/0055741). In the construction shown in Fig. 8 of the '741 Dixon et al. application, there is not a first and second section each having an array of receptacles and an orthodontic appliance received in a receptacle of each section. Instead, appliances 60 are received on appliance mounting card 71, while adhesive carrying card 70 supports only the adhesive.

Moreover, the subject matter of claim 1 is not obvious in view of either the '229 Dunn et al. patent or the '741 Dixon et al. patent application. Neither of these references contemplates an orthodontic set-up tray having appliances in each of two sections that are movably connected to each other. In addition, neither of these references recognizes the problems associated with relatively large set-up trays or suggests applicant's solution for overcoming these problems.

Likewise, the claims dependent from claim 1, namely claims 2-3, 9, 12, 17-19, 23-24 and new claims 37-38 are also not anticipated or rendered obvious by either the '229 Dunn et al. patent or the '741 Dixon et al. patent application, whether considered alone or in any hypothetical combination with another reference. For example, neither of these references suggests the subject matter of claim 1 in combination with a releasable coupling as set out in Claim 2 or a coupling for pivotal connection as set out in claim 9. Similarly, neither of these references teaches the subject matter of the other dependent claims such as containers received in receptacles as set out in claim 37 or adhesive in contact with the appliances as set out in claim 22.

Independent claim 26 is directed toward an orthodontic set-up tray according to another embodiment of the invention, wherein the tray comprises a substrate having two spaced-apart projections and a receptacle located between the projections. Claim 26 has been amended to further recite that the set-up tray also includes a container having a bottom support and a dome-shaped member that extends over the bottom support. The bottom support extends beyond the member and presents two edge portions that are respectively received in undercut regions adjacent the receptacle. Claim 26 further recites that the container is opened by moving the dome-shaped member through the space between the projections.

The subject matter of amended claim 26 is neither taught nor suggested by the references. In the '685 Corcoran et al. patent application, an elongated carrier 21 has a plurality of cavities 25 to receive orthodontic brackets 30 and a cover 28 is provided to slide over the carrier 21 as explained in paragraph 0029. However, as mentioned in paragraph 0034, the cover 28 is removed before the carrier 21 is inserted into a slot 44 of an organizer tray 41.

Additionally, the carriers 21 of the '685 Corcoran et al. patent application are not received in an orthodontic set-up tray. Instead, the carriers 21 are received in an organizer 40. The '685 patent application describes a set-up tray 10, but this tray is placed in a compartment 51 of the organizer tray 40 and does not receive the carriers 21 (see, e.g., Fig. 3).

The '685 Corcoran patent application neither describes nor suggests the subject matter of claim 26, since there is no disclosure of a set-up tray that receives a container. This reference also does not have any disclosure of a container with a dome-shaped member that extends over a bottom support, or any disclosure of a container with a bottom support that extends beyond a dome-shaped member. Moreover, there is no disclosure in this reference of a container that is opened by moving a dome-shaped member through the space between projections, where each projection provides an undercut region that receives an edge portion of the bottom support of the container.

The subject matter of amended claim 26 is also not anticipated or rendered obvious by the '025 Romick patent. The medication dispenser of the '025 patent does not include a container having a bottom support and a dome-shaped member that extends over the bottom support, wherein the bottom support extends beyond the member. Nor does this reference disclose a container that is opened by moving a dome-shaped member through a space between projections that also serve to provide an undercut region for receiving edge portions of a bottom support. In the '025 patent, the

medication is dispensed by pushing on the blisters in order to expel the medication through a frangible bottom seal (see, e.g., col. 4, lines 28-31 of the '025 patent).

Similarly, it is believed that the claims dependent upon independent claim 26 are also novel and not anticipated by either the '685 Corcoran et al. patent application or the '025 Romick patent, or rendered obvious by any hypothetical combination of these or other references. For example, none of the references teaches the subject matter of claim 26 in combination with at least one additional projection having an overhanging section as set out in claim 27, or the subject matter of claim 26 in combination with first and second sections along with a coupling that movably connects the first section to the second section as set out in claim 29.

The specification has been amended to provide formal antecedent support for the new language that has been added to the claims. In particular, page 5 has been amended to add the word "array" and "area". Page 13 has been amended to correct a typographical error as well as to recite that the dome-shaped member 74e is lifted through the space between the projections 80e to open the container 36e. It is believed that no issues of new matter are raised by these amendments since all of these concepts were inherent in the application as filed. For example, with respect to movement of the dome-shaped member 74e, these concepts can be understood by reference to the text extending between line 8, page 12 and line 11, page 13 as well as by reference to Figs. 15 and 16.

In view of the foregoing, it is believed that all of the claims are in condition for allowance. Applicants respectfully request the Examiner's reconsideration and withdrawal of the rejections for the reasons set out above.

Respectfully submitted,

January 25, 2007

Date

By: /James D. Christoff/

James D. Christoff, Reg. No.: 31,492

Telephone No.: 651-733-1512

Office of Intellectual Property Counsel
3M Innovative Properties Company
Facsimile No.: 651-736-3833